



**KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI**  
**UNIVERSITAS SYIAH KUALA**  
**UPT. PERPUSTAKAAN**

Jalan T. Nyak Arief, Kampus UNSYIAH, Darussalam – Banda Aceh, Tlp. (0651) 8012380, Kode Pos 23111  
Home Page : <http://library.unsyiah.ac.id> Email: [helpdesk.lib@unsyiah.ac.id](mailto:helpdesk.lib@unsyiah.ac.id)

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## **ELECTRONIC THESIS AND DISSERTATION UNSYIAH**

### **TITLE**

**HUBUNGAN KADAR MERKURI PADA SUMBER AIR DENGAN STATUS KESEHATAN MASYARAKAT KECAMATAN KRUENG SABEE KABUPATEN ACEH JAYA TAHUN 2013**

### **ABSTRACT**

Heavy metal mercury ( Hg ) is one of the substances that pollute water sources and harmful to the environment. Contamination can occurred in the water sources include rivers, wells, mountains and municipal waterworks will affect community's health status. The purpose of this study to analyze the relationship between mercury levels in water sources with the health status of the people in the District Krueng Sabee Aceh Jaya which was conducted in August 2013 to February 2014. This study is an observational analytic study with cross sectional approach. Samples were taken as many as 78 people based on pre-defined inclusion criteria and sources of water used. Data collected through water sampling and interviewed respondents by using questionnaire. The assessment of water sample was used Absorption Atom Spectrophotometer (AAS) in the Laboratory of Faculty of Mathematics Chemistry in Unsyiah University. Data was analyzed using univariate and bivariate analysis (Chi-square). The results showed description of the health status of a healthy community is 15.4%, amounting to 67.9% of acute toxicity and chronic toxicity of 16.7%, while the description of mercury levels in water sources between 0.1253 to 3.2259 ppb with an average of 2.1906 ppb. The quality standard for drinking water mercury PP Menkes No. 1 ppb . 492 in 2010 and 2 ppb PP. 82 of 2001 for the environment. The result of this study indicate that there is a relationship between mercury levels in water sources with community health status with  $p = 0.018 < \hat{1} \pm 0.05$ .

**Keywords:** Mercury, Mercury levels, Water source, Health status